

**WHAT IS CLAIMED IS:**

1. A switch device comprising:
  - a base part;
  - an operation unit which is to be depressed;
  - 5 a support section which is provided on the base part, supports a circumferential edge of the operation unit and biases the at least one part of the operation unit away from the base part, said one part of the operation unit lying near the circumferential edge and able to move toward and from the base part when the operation unit is depressed and released; and
  - 10 a motion-detecting section which is provided on at least one of the base part and support section, is positioned near the circumferential edge of the operation unit and which detects the circumferential edge of the operation unit being moved toward the base part when the operation unit is depressed.
2. The switch apparatus according to claim 1, wherein the support section has a
  - 15 plurality of spring members which are provided at the circumferential edge of the operation unit, which undergo elastic deformation when the operation unit is depressed and which restore shape to bias at least one part of the operation unit away from the base part.
3. The switch device according to claim 1, wherein the support section has a
  - 20 cushion member which is provided at the circumferential edge of the operation unit and which undergoes elastic deformation when at least one part of the circumferential edge of the operation unit moves toward the base part as the operation unit is depressed.
4. The switch device according to claim 1, wherein the support section comprises an
  - operation member which is provided at the base part, which moves toward and from the
  - 25 base part when the operation unit is depressed, which has a shape corresponding to the circumferential edge of the operation unit and supports the circumferential edge thereof, and a biasing section which biases the operation member away from the base part, thereby to bias the operation unit away from the base part.
5. The switch device according to claim 4, wherein a motion-detecting section

comprises a membrane switch which is provided on the base part, which opposes the operation member and which is closed when the circumferential edge of the operation unit is depressed, and the operation member has semispherical projections which oppose at least the membrane switch.

- 5 6. The switch device according to claim 4, wherein the biasing section has a plurality of spring members which undergo elastic deformation when the circumferential edge of the operation unit is depressed and which restore shape to bias the operation member away from the base part.
7. The switch device according to claim 4, wherein the biasing section has a cushion  
10 member, which undergoes elastic deformation when the operation unit moves the operation member toward the base part.
8. The switch device according to claim 5, wherein the support section has an elastic member, which is provided on the semispherical projections of the operation member, which oppose at least the switch.
- 15 9. The switch device according to claim 5, wherein the biasing section has a cushion member which opposes at least the membrane switch and which undergoes elastic deformation when the operation unit is depressed to move the operation member toward the base part.
10. The switch device according to claim 4  
20 wherein the support section comprises a rotation-detecting section for detecting the rotation of the operation unit, said rotation-detecting section having a plurality of rollers which rotate around axes extending in radial direction of the operation member and which support the operation unit, allowing the operation unit to rotate in a plane that intersect with the direction in which the operation unit is depressed.
- 25 11. The switch device according to claim 10, wherein the operation unit has a first gear which is convexo-concave in the rotating direction, and the rotation-detecting section comprises a second gear set in mesh with the first gear and configured to slide in axial direction and a rotation-detecting sensor configured to detect the rotation of the second gear.

12. The switch device according to claim 1, wherein the operation unit comprises a top plate which is to be depressed and a projection which protrudes outwardly from the top plate in a circumferential direction the top plate is depressed and which is supported by the support section.
- 5 13. The switch device according to claim 10, wherein the operation unit comprises the top plate which is to be depressed and the projection which protrudes outwardly from the top plate in the circumferential direction the top plate is depressed, which has a larger diameter than the top plate and which is supported on the rollers of the support section.
- 10 14. The switch device according to claim 13, wherein the projection is shaped like a flange, and the operation unit has an annular member having a cross section bulging downward, said annular member being provided on that surface of the projection, which contact the rollers.
- 15 15. The switch device according to claim 10, wherein the support section comprises an annular cover in which the operation unit is inserted to move in axial direction and not to move in circumferential direction, which is supported on the base part and which is configured to rotate.
- 20 16. The switch device according to claim 15, wherein the operation unit has an engagement section, and the annular cover has a fastening section which is configured to position and hold the engagement section in a circumferential direction of the operation unit.
17. The switch device according to claim 15, wherein the base part comprises a plurality of rollers which support the annular cover, allowing the same to rotate.
18. The switch device according to claim 1, wherein a force which biases the operation unit away from the base part is substantially equal to a load which the turntable of a record player exerts which depressed.
- 25 19. A data-processing apparatus comprising:  
a data-reading section, which reads data from a recording medium;  
a data-processing section, which processes the data, read from the recording medium;

the switch device of the type defined in claim 1; and

a process control section which changes modes in which the data-processing section processes the data, when the motion-detecting section of the switch device detects that the operation unit is moving toward the base part.

5 20. A data-processing apparatus comprising:

the data-reading section which reads data from a recording medium;

the data-processing section, which processes the data, read from the recording medium;

the switch device of the type defined in claim 10; and

10 a process control section which changes modes in which the data-processing section processes the data, when the rotation-detecting section of the switch device detects that the operation unit is rotating.

21. A playback apparatus comprising:

the data-processing apparatus of the type defined in claim 19; and

15 a playback section that reproduces data processed by the data-processing apparatus.